

REMARKS

Claims 1-5 were examined. All claims were rejected. In response to the above-identified Office Action, Applicants amend claim 1 but do not cancel any claims or add any new claims. Reconsideration of the rejected claims in light of the aforementioned amendments and the following remarks is requested.

I. Claims Rejected Under 35 U.S.C. § 102(b)

The Examiner rejected claims 1 and 3 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,757,840 issued to Hiroki ("*Hiroki*"). Applicants' claimed structure differs from that disclosed by *Hiroki*, and amended claim 1 clearly identifies the difference. Consequently, Applicants believe claim 1 and its dependent claims 2-5 are not anticipated by the references of record.

As to claim 1, that claim recites a high frequency optical pulse source comprising a phase control section disposed between a first DFB section and a second DFB section. The first DFB section has a grating formed under its active layer, while the second DFB section has a grating formed over its active layer. This structure is clearly depicted in figure 1 and was the structure intended by the original claim 1's "gratings formed inside the DFB sections and symmetrical to each other" limitation, although the axis and type of symmetry were not adequately described.

Since *Hiroki* teaches a different structure, where gratings in a first active region and a second active region are formed on the *same* surface (*see* col. 5, lines 45-47), rather than *under* the active layer of one DFB and *over* the active layer of the other DFB, the reference fails to anticipate claim 1. For at least this reason, Applicants respectfully request that the Examiner withdraw this rejection.

As to claim 3, that claim depends upon claim 1, and is patentable for at least the reason discussed in support of its base claim. The Examiner is requested to withdraw the rejection of claim 3 also.

II. Claims Rejected Under 35 U.S.C. § 103(a)

The Examiner rejected claim 2 under 35 U.S.C. § 103(a) as unpatentable over *Hiroki (supra)*, and claims 4 and 5 as unpatentable over *Hiroki* in view of U.S. Patent No. 6,636,547 issued to Evans *et al.* ("*Evans*").

Claims 2, 4 and 5 depend upon claim 1, and are patentable for at least the reason discussed in support of that claim. In addition, as to claim 2, the Examiner asserts that the provision of gratings underlying and overlying the active layers would have been obvious in view of *Hiroki*, because such gratings would permit adjustability. However, the gratings provide more than mere adjustability: they allow *independent* Bragg wavelength detuning, or in other words, Bragg wavelength detuning of both DFB sections. (See specification at p. 3, lines 9-17 and p. 5, lines 8-9.) Although *Hiroki* teaches gratings in the first and second active regions, it does not teach or suggest underlying and overlying gratings to permit *independent* Bragg wavelength detuning.

For at least the foregoing reasons, Applicants respectfully submit that claims 2, 4 and 5 are not obvious in view of the references of record, and request that the rejections of these claims be withdrawn.



CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 1-5, patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

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Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, LLP


Eric S. Hyman, Reg. No. 30,139

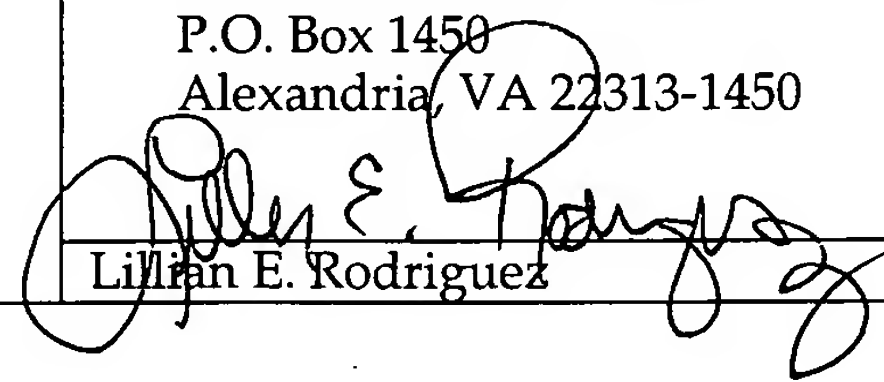
12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025

(310) 207-3800

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Lillian E. Rodriguez

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